

## I. Introduction

In the Final Office Action dated April 29, 2005, the Examiner rejected claims 1, 4, 6, 8, 9, 12, 14, 15, 17-19, 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over C. Rigney, RFC 2865 – Remote Authentication Dial In User Service (RADIUS), (2000), at <http://www.faqs.org/rfcs/rfc2865.html> ("Rigney") in view of U.S. Pat. No. 6,233,608 ("Laursen") and information disclosed in the background section of the current application. Further, claims 2, 3, 5, 7, 10, 11, 13, 16, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rigney in view of Laursen, the background of the current application, and William Stallings, Cryptography and Network Security (1999) ("Stallings"). In this Amendment, claims 1, 4, 9, 12, 17, 21, and 22 have been amended and claims 23-29 have been added. Applicants respectfully request reconsideration of the claims and withdrawal of the rejections in light of the amendments to the claims and the following remarks.

## II. The Proposed Combination of Rigney, Laursen, and the Background of the Current Application Does Not Render the Independent Claims Unpatentable

The currently-claimed invention is directed to a method and system for providing a broadband internet system that offers improved access authentication and security. Generally, each of the amended independent claims recites a subscriber sending a service request for broadband internet services to a broadband internet service provider. In response to receiving the request for broadband internet service, a line identifier associated with a port assigned to the subscriber is retrieved from a data base and transferred to the broadband internet service provider. The broadband internet service provider then authenticates the service request for broadband internet service based on the line identifier, ***wherein the broadband internet service provider only authenticates the service request if the subscriber sends the service request through the port associated with the line identifier.*** Rigney, Laursen, and the background of the current application all fail to disclose at least a method or system comprising a service provider that only authenticates a service request if a subscriber sends the service request through a port associated with the line identifier.

Rigney discloses a protocol for carrying authentication, authorization, and configuration information between a shared Authentication Server and a Network Access Server that desires to authenticate its links. As admitted by the Examiner, Rigney fails to disclose associating a line identifier with a port assigned to a subscriber wherein the line identifier is usable to authenticate a service. Therefore, Rigney necessarily does not disclose a method and system comprising a service provider that authenticates a service request based on a line identifier, wherein the service provider only authenticates a service request if a subscriber sends the service request through the port associated with the line identifier.

Like Rigney, Laursen also does not disclose a system or method comprising a service provider that authenticates a service request based on a line identifier, wherein the service provider only authenticates a service request if a subscriber sends the service request through the port associated with the line identifier. Laursen discloses a system that authenticates users of devices having limited computer power such as cellular phones. In Laursen, a user may access a service provider using any convention personal computer ("PC") or a device with limited computing power such as a cell phone. When using a PC, a user may send a service request to a service provider through any number of different ports associated with any number of internet connections. As long as the user inputs the correct login ID and password, the service provider will authenticate the service request from the user using a PC. Alternatively, when using a personal device such as a cell phone, a user sending a service request to a service provider through a port will be authenticated by the service provider so long as the device id associated with the service report is correct. Therefore, due to the fact ***the service provider of Laursen will authenticate a service request sent from a subscriber through any port from a PC and through another port associated with a cell phone***, Laursen necessarily does not disclose a system comprising a ***service provider that only authenticates a service request if a subscriber sends the service request through a port associated with the line identifier*** as in the currently-claimed invention.

Like Rigney and Laursen, the background of the current application does not disclose a system or method comprising a service provider that only authenticates a

service request if a subscriber sends the service request through a port associated with the line identifier. The background of the current application discloses traditional systems only where a subscriber sends a service request comprising a login ID and password to a service provider. If the login ID and password are validated, the service provider authenticates the service request. The background of the current invention does not disclose any type of service provider that only authenticates a service request if a subscriber sends a service request through a port associated with the subscriber.

Due to the fact Rigney, Laursen, and the background of the current application ***fail to disclose at least a system or method comprising a service provider that only authenticates a service request if a subscriber sends the service request through a port associated with the line identifier***, any combination of Rigney, Laursen, and the background of the current application necessarily cannot render the currently-claimed invention unpatentable. Applicants respectfully request the withdrawal of the rejection to claims 1, 4, 6, 8, 9, 12, 14, 15, 17-19, 21 and 22 under 35 U.S.C. § 103(a).

### **III. The Addition of Stalling to the Proposed Combination Does Not Render the Currently-Claimed Invention Unpatentable**

Claims 2, 3, 5, 7, 10, 11, 13, 16, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rigney in view of Laursen, the background of the current application, and Stallings. Chapter 13 of Stallings, cited by the Examiner, discloses various encryption and authentication protocols, as well as various internet network architectures that enhance security. Like Rigney, Laursen, and the background of the current application, ***Stallings also fails to disclose at least a system or method comprising a service provider that only authenticates a service request if a subscriber sends the service request through a port associated with the line identifier***. Thus, any combination of Rigney, Laursen, the background of the current application, and Stallings necessarily does not teach the amendment independent claims or any claims that depend on the amended independent claims.

With respect to claims 2, 3, 5, 7, 10, 11, 13, 16, and 20, the Examiner has cited Stallings for the concept of an exchange wherein a second set of authentication values

is submitted in a separate transaction from a first set of authentication value. In particular, the Examiner points to page 431, Table 13.4(c). The two sets of values in Table 13.4(c) are not two sets of authentication values used to authenticate **a single entity** as in the currently-claimed invention. The first set of values is used for the **initiator to verify the identity of the responder** and the second set of values is used for the **responder to verify the identity of the initiator**. In contrast, claims 2, 3, 5, 7, 10, 11, 13, 16, and 20 disclose a method and system that authenticates **a subscriber** and authenticates a service request based on two sets of data, the subscriber identifier and the line identifier. Due to the fact Stallings does not disclose using two sets of data to authenticate a single user, Stallings in combination with Rigney, Laursen, and the background of the current application necessarily does not render claims 2, 3, 5, 7, 10, 11, 13, 16, and 20 unpatentable. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 103(a).

#### **IV. Dependent Claims 23-29**

Even if claims 1-22 are misinterpreted to read on a proposed combination of Rigney, Laursen, the background of the current application, and Stallings, dependent claims 23-29 are still allowable. Claims 23-29 recite either that a subscriber identifier comprises a login ID and a password, or that a service request is authenticated based on a line identifier, and a login ID and password of a subscriber. Therefore, in the method or systems of claims 23-29, a user is authenticated **based on a line identifier, and a login ID and password** of a subscriber. Rigney, Laursen, the background of the current application, and Stallings all fail to disclose at least this limitation.

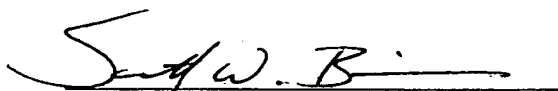
In the Office Action dated April 29, 2005, the Examiner cited Laursen for a system using a line identifier to authenticate a service request. Laursen discloses a system in which a user may gain access to a service provider from a PC based on a **login ID and password only**, or from a device such as a cell phone based on a **device id only**. Laursen does not disclose any system or method for providing access to a service provider based on a line identifier, and a login ID and password of a subscriber. Due to the fact Rigney, Laursen, the background of the current application, and Stallings all fail to disclose authenticating a service request based on a line identifier,

and a login ID and password, any combination of Rigney, Laursen, the background of the current application, and Stalling necessarily can not render claims 23-29 unpatentable.

#### V. CONCLUSION

In view of the foregoing amendment and remarks, Applicants submit that the pending claims are in condition for allowance. Reconsideration is therefore respectfully requested. If there are any questions concerning this Response, the Examiner is asked to phone the undersigned attorney at (312) 321-4200.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott W. Brim", written over a horizontal line.

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